Having thus described the preferred embodiments, the invention is now claimed to be:

1. A magnetic resonance apparatus comprising:

a main magnetic field generating assembly **(12)** located in a magnetic resonance suite that generates a substantially spatially constant main magnetic field through at least a portion of a subject in an imaging region;

a gradient field generating assembly **(16)** for overlaying spatially variant gradient magnetic fields onto the main magnetic field;

a radio frequency assembly **(20)** for exciting magnetic resonance in dipoles in the imaging region;

a receiver **(34)** for receiving magnetic resonance signals from the imaging region;

at least one radio frequency transponder **(60)** affixed to an object in the magnetic resonance suite;

a transponder means **(62)** for:

interrogating the transponder **(60)**; and,

receiving data sent by the transponder **(60)**, for indicating a location of the object to which it is affixed.

2. The magnetic resonance apparatus as set forth in claim 1, further including:

a local radio frequency receive coil **(22)** for receiving magnetic resonance signals, the at least one transponder **(60)** being affixed to the coil **(22)**, the transponder **(60)** reporting the presence of the coil **(22)**.

3. The magnetic resonance apparatus as set forth in claim 2, further including:

a transponder communication antenna **(64)** located adjacent the imaging region to interrogate each coil located in the imaging region.

4. The magnetic resonance apparatus as set forth in claim 3, wherein the magnetic field generating assembly **(12)** is a bore type assembly and the communication antenna **(64)** is located within the bore.

5. The magnetic resonance apparatus as set forth in claim 1, wherein the data sent by the transponder includes an identity of the object with which it is associated, and further including

a comparitor **(94)** that compares the identity of the object with approved objects.

6. The magnetic resonance apparatus as set forth in claim 1, further including:

a coil interrogator **(92)** that determines through physical connections identities of coils that are connected; and,

a means **(94)** for comparing the identities to the connected coils with identities of coils identified by the transponder means **(62)**.

7. The magnetic resonance apparatus as set forth in claim 6, further including:

a coil identity and connectivity database **(90)** which correlates coil identities determined through physical connections with coil identities determined by the transponder means **(62)**.

8. The magnetic resonance apparatus as set forth in claim 1, further including:

at least one additional object **(102, 104, 106, 108, 110, 112, 114)** located in the magnetic resonance suite that is tagged with at least one transponder **(60)** the transponder storing and transmits an identity which correlates to the at least one additional object **(102, 104, 106, 108, 110, 112, 114)**.

9. The magnetic resonance apparatus as set forth in claim 8, further including:

an object list **(93)** that correlates the identities of objects present in the magnetic resonance suite with transponder identities.

10. The magnetic resonance apparatus as set forth in claim 10, further including:

transponder antennae **(64)** that cooperatively derive a location of the at least one additional object **(102, 104, 106, 108, 110, 112, 114)** and triggers an emergency procedure if the location is within a pre-determined safety threshold **(116)**.

11. The magnetic resonance apparatus as set forth in claim 1, wherein the at least one transponder **(60)** operates at a frequency that does not interfere with operation of the radio frequency assembly **(20)**.

12. A magnetic resonance receiving coil and radio frequency transponder combination for use in the magnetic resonance apparatus of claim 1.

13. A method of magnetic resonance comprising:

generating a main magnetic field through an imaging region;

overlaying gradient magnetic fields onto the main magnetic field;

exciting magnetic resonance in selected dipoles of at least a portion of a subject located in the imaging region;

receiving and demodulating the magnetic resonance; and

interrogating at least one radio frequency transponder **(60)** to indicate a location of a physical object with which it is associated.

14. The method as set forth in claim 13, wherein the interrogating step includes:

transmitting a radio frequency signal detectable by the at least one transponder **(60)**; and,

the transponder **(60)** responding with a return radio frequency signal that identifies the transponder.

15. The method as set forth in claim 14, wherein the interrogating step includes:

interrogating additional radio frequency transponders **(60)** associated with additional objects, each transponder reporting a unique identity.

16. The method as set forth in claim 14, wherein the at least one object includes at least one local coil **(22)** and further including:

detecting whether the local coil **(22)** with which the at least one transponder **(60)** is associated is electrically connected to an imaging system.

17. The method as set forth in claim 16, further including:

comparing all local coils identified from the received transponder radio signals as being in the imaging region with the local coils which are connected to the imaging system to identify any local coils in the imaging region which are not electronically connected to the imaging system.

18. The method as set forth in claim 11, wherein a plurality of the transponders **(60)** are associated with objects that are to be maintained at least a pre-selected distance from the imaging region during imaging and further including:

interrogating at least any of the transponders which ar within the pre-selected distance of the imaging region and warning that its associated object us within the pre-selected distance.

19. The method as set forth in claim 13, wherein the step of transmitting includes transmitting in an RF band that is sufficiently removed from the operating frequency of radio frequency transmit and receive coils **(20, 22)** associated with a magnetic resonance device so as not to interfere with the operation of the coils **(20, 22)**.

20. A magnetic resonance apparatus comprising:

a main magnetic field generating assembly **(12)** for generating a main magnetic field in an imaging region;

a gradient field assembly **(16)** for imposing spatially variant gradient fields onto the main magnetic field;

a radio frequency transmit/receive assembly **(20)** for exciting magnetic resonance in selected dipoles within the imaging region;

at least one local radio frequency receive coil **(22)** located within a bore **(14)** of the magnetic resonance apparatus, the coil **(22)** having an electrical connection to the magnetic resonance apparatus;

a radio frequency identification transponder **(60)** attached to the receive coil **(22)** that carries at least the identity of the receive coil **(22)** in an on-board memory **(72)**;

a connection interrogator **(92)** that determines identities of coils electrically connected to the apparatus;

a transponder reader/writer **(62)** that determines identities of coils physically present inside the bore **(14)**;

a comparitor **(94)** that detects discrepancies between the identities of the coils electrically connected to the apparatus and those physically present inside the bore.